SIEMENS

## Data sheet 3TC4417-0AP4

Contactor, Size 2, 2-pole, DC-3 and 5, 32 A Auxiliary contacts 22 (2 NO + 2 NC)
230 V DC DC operation

| | |
|---|---|
| **product designation** | Contactor |
| **product type designation** | 3TC |
| **General technical data** | |
| **size of contactor** | 2 |
| **product extension** | |
| ● function module for communication | No |
| ● auxiliary switch | Yes |
| **insulation voltage rated value** | 800 V |
| maximum permissible voltage for protective separation between coil and main contacts according to EN 60947-1 | 300 V |
| **shock resistance at rectangular impulse** | |
| ● at DC | 7,5g / 5 ms, 3,4g / 10 ms |
| **mechanical service life (operating cycles)** | |
| ● of contactor typical | 10 000 000 |
| ● of the contactor with added auxiliary switch block typical | 10 000 000 |
| **reference code according to IEC 81346-2** | Q |
| **Substance Prohibitance (Date)** | 02/01/2012 |
| **Ambient conditions** | |
| **ambient temperature** | |
| ● during operation | -25 ... +55 °C |
| ● during storage | -50 ... +80 °C |
| **relative humidity minimum** | 10 % |
| **relative humidity at 55 °C according to IEC 60068-2-30 maximum** | 95 % |
| **Main circuit** | |
| **number of poles** | 2 |
| **number of poles for main current circuit** | 2 |
| **number of NO contacts for main contacts** | 2 |
| **number of NC contacts for main contacts** | 0 |
| **type of voltage** | DC |
| **operational current** | |
| **● at 1 current path at DC-1** | |
| — at 24 V rated value | 32 A |
| — at 110 V rated value | 32 A |
| — at 220 V rated value | 32 A |
| **● with 2 current paths in series at DC-1** | |
| — at 24 V rated value | 32 A |
| — at 110 V rated value | 32 A |
| — at 220 V rated value | 32 A |
| — at 440 V rated value | 32 A |
| — at 600 V rated value | 32 A |

| | |
|---|---|
| — at 750 V rated value | 32 A |
| **● at 1 current path at DC-3 at DC-5** | |
| — at 24 V rated value | 32 A |
| — at 110 V rated value | 32 A |
| — at 220 V rated value | 32 A |
| **● with 2 current paths in series at DC-3 at DC-5** | |
| — at 24 V rated value | 32 A |
| — at 110 V rated value | 32 A |
| — at 220 V rated value | 32 A |
| — at 440 V rated value | 29 A |
| — at 600 V rated value | 21 A |
| — at 750 V rated value | 7.5 A |
| **operating power** | |
| ● at DC-1 | |
| — at 110 V rated value | 3.5 kW |
| — at 220 V rated value | 7 kW |
| — at 440 V rated value | 14 kW |
| — at 750 V rated value | 24 kW |
| ● at DC-3 at DC-5 | |
| — at 110 V rated value | 2.5 kW |
| — at 220 V rated value | 5 kW |
| — at 440 V rated value | 9 kW |
| — at 600 V rated value | 9 kW |
| — at 750 V rated value | 4 kW |
| **operating frequency** | |
| ● at DC-1 maximum | 1 500 1/h |
| ● at DC-3 maximum | 750 1/h |
| ● at DC-5 maximum | 750 1/h |
| **Control circuit/ Control** | |
| **type of voltage of the control supply voltage** | DC |
| **control supply voltage at DC** | |
| ● rated value | 230 V |
| **closing power of magnet coil at DC** | 10 W |
| **holding power of magnet coil at DC** | 10 W |
| closing delay at DC | 35 ... 190 ms |
| opening delay at DC | 10 ... 25 ms |
| **arcing time** | 20 ... 30 ms |
| **Auxiliary circuit** | |
| **number of NC contacts for auxiliary contacts** | 2 |
| ● instantaneous contact | 2 |
| **number of NO contacts for auxiliary contacts** | 2 |
| ● instantaneous contact | 2 |
| number of CO contacts for auxiliary contacts | 0 |
| **identification number and letter for switching elements** | 22 |
| operational current at AC-12 maximum | 10 A |
| **operational current at AC-15** | |
| ● at 230 V rated value | 5.6 A |
| ● at 400 V rated value | 3.6 A |
| ● at 500 V rated value | 2.5 A |
| **operational current at DC-12** | |
| ● at 24 V rated value | 10 A |
| ● at 48 V rated value | 10 A |
| ● at 60 V rated value | 10 A |
| ● at 110 V rated value | 3.2 A |
| ● at 125 V rated value | 2.5 A |
| ● at 220 V rated value | 0.9 A |
| ● at 600 V rated value | 0.22 A |
| **operational current at DC-13** | |
| ● at 24 V rated value | 10 A |
| ● at 48 V rated value | 5 A |
| ● at 60 V rated value | 5 A |

| | |
|---|---|
| ● at 110 V rated value | 1.14 A |
| ● at 125 V rated value | 0.98 A |
| ● at 220 V rated value | 0.48 A |
| ● at 600 V rated value | 0.07 A |
| **UL/CSA ratings** | |
| **contact rating of auxiliary contacts according to UL** | A600 / P600 |
| **Short-circuit protection** | |
| **design of the fuse link** | |
| ● for short-circuit protection of the main circuit | |
| — with type of coordination 1 required | 2 x 3NA3020 (50 A) in series (750 V, 3 kA) |
| — with type of assignment 2 required | 2 x 3NA3020 (50 A) in series (750 V, 3 kA) |
| ● for short-circuit protection of the auxiliary switch required | gG: 16 A (500 V, 1 kA) |
| **Installation/ mounting/ dimensions** | |
| **mounting position** | +/-22,5° rotation possible on vertical mounting surface; can be tilted forward and backward by +/- 22.5° on vertical mounting surface; standing, on horizontal mounting surface |
| **fastening method** | screw and snap-on mounting onto 35 mm DIN rail according to DIN EN 50022 |
| ● side-by-side mounting | Yes |
| **height** | 85 mm |
| **width** | 70 mm |
| **depth** | 145 mm |
| **required spacing** | |
| ● with side-by-side mounting | |
| — forwards | 15 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 10 mm |
| ● for grounded parts | |
| — forwards | 30 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — at the side | 10 mm |
| — downwards | 10 mm |
| ● for live parts | |
| — forwards | 30 mm |
| — backwards | 0 mm |
| — upwards | 10 mm |
| — downwards | 10 mm |
| — at the side | 10 mm |
| **Connections/ Terminals** | |
| **type of electrical connection** | screw-type terminals |
| ● for main current circuit | screw-type terminals |
| ● for auxiliary and control circuit | screw-type terminals |
| type of connectable conductor cross-sections for main contacts | |
| ● solid or stranded | 2x (2,5 ... 10 mm²) |
| ● finely stranded with core end processing | 2x (1.5 ... 4 mm²) |
| **type of connectable conductor cross-sections** | |
| ● for auxiliary contacts | |
| — solid or stranded | 2x (1 ... 2.5 mm²) |
| — finely stranded with core end processing | 2x (0.75 ... 1.5 mm²) |
| **Safety related data** | |
| product function mirror contact according to IEC 60947-4-1 | Yes; One NC contact each must be connected in series for the right and left auxiliary switch block respectively |
| **protection class IP on the front according to IEC 60529** | IP00 |
| **Certificates/ approvals** | |

| **General Product Approval** | **Functional Safety/Safety of Machinery** |
|---|---|

| | | | | | |
|---|---|---|---|---|---|
| CSA | CCC | Confirmation | UL | EAC | Type Examination Certificate |

| Functional Safety/Safety of Machinery | Declaration of Conformity | | Test Certificates | | |
|---|---|---|---|---|---|
| Type Examination Certificate | UKCA | CE EG-Konf. | Type Test Certificates/Test Report | Miscellaneous | Special Test Certificate |

| other | Dangerous Good |
|---|---|
| Confirmation | Transport Information |

## Further information

**Siemens has decided to exit the Russian market (see here).**
https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business

**Siemens is working on the renewal of the current EAC certificates.**
Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

**Information on the packaging**
https://support.industry.siemens.com/cs/ww/en/view/109813875

**Information- and Downloadcenter (Catalogs, Brochures,…)**
https://www.siemens.com/ic10

**Industry Mall (Online ordering system)**
https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TC4417-0AP4

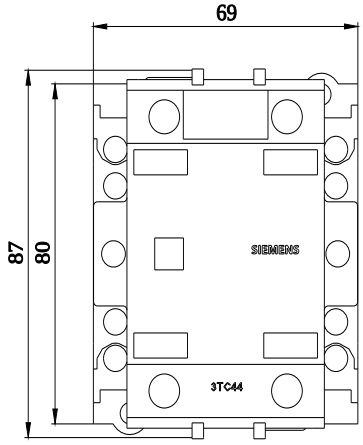
**Cax online generator**
http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TC4417-0AP4

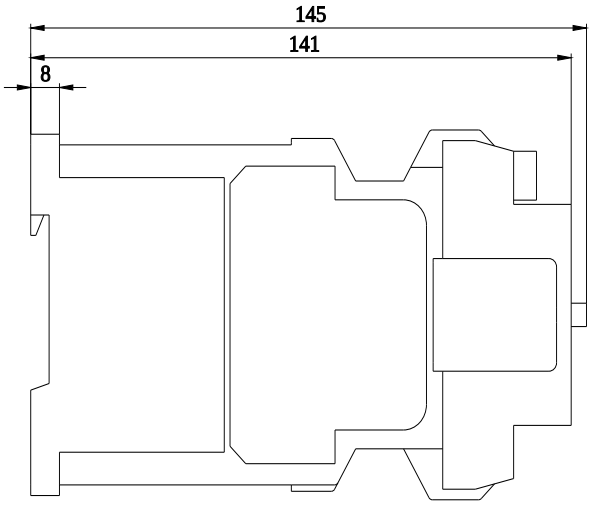
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AP4

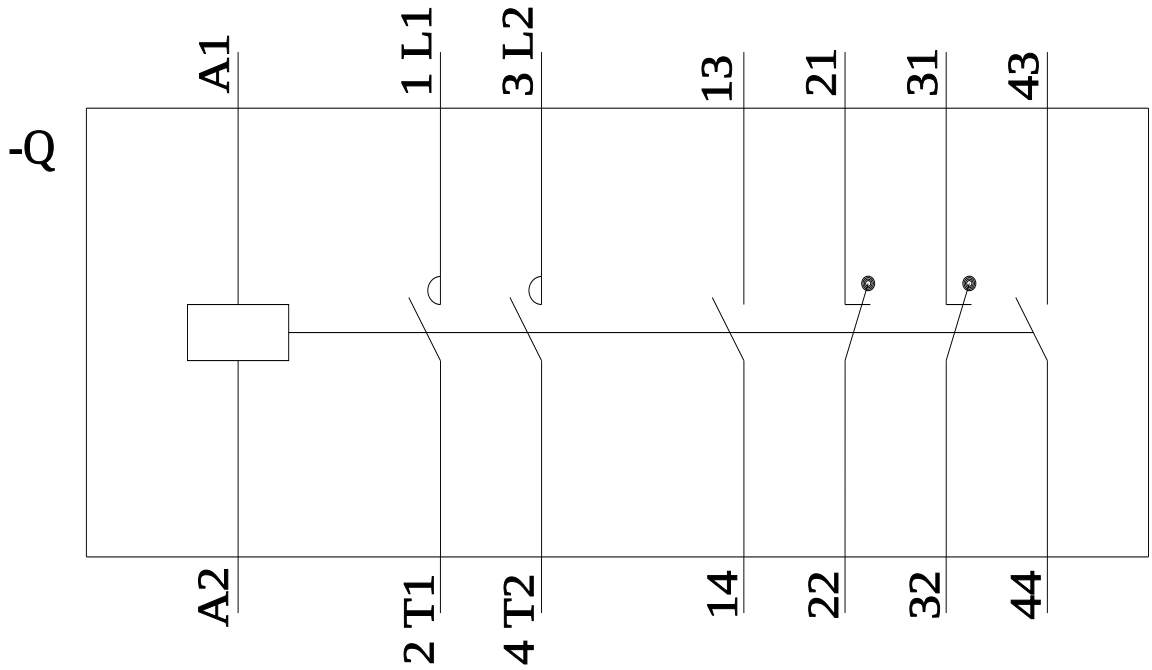
**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)**
http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TC4417-0AP4&lang=en

**Characteristic: Tripping characteristics, $I^2t$, Let-through current**
https://support.industry.siemens.com/cs/ww/en/ps/3TC4417-0AP4/char

**Further characteristics (e.g. electrical endurance, switching frequency)**
http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3TC4417-0AP4&objecttype=14&gridview=view1




**last modified:** 8/11/2023

# Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

3TC44170AP4